# REMARKS

# Request for Return of Initialed Form PTO/SB/08A

The Examiner is respectfully requested to return a copy of the Form PTO/SB/08A filed on January 28, 2002 and to indicate thereon that the cited publications were considered and made of record.

#### Claim Amendments

Claim 19 was amended to include features of original claims 20, 22, 28 and 30.

The amendment to claim 20 is supported in the specification on page 27, lines 19 to 21.

The amendment to claim 22 is supported in the specification on page 28, lines 15 to 16.

### Presently Claimed Invention

The presently claimed invention as set forth in claim 19 concerns a method for treating combustible wastes comprising

- (a) preliminarily carbonizing the combustible wastes at a temperature of 300 to 800°C in a preliminary carbonization furnace to produce preliminarily carbonized products;
  - (b) disintegrating the preliminarily carbonized products;
- (c) adding and mixing a binder to and with the disintegrated products to produce a mixture;
  - (d) molding the mixture to produce molded products; and
- (e) carbonizing the molded products at a temperature of 600 to 1000°C in a carbonization furnace to produce carbonized products.

# Prior Art Rejections

#### Anticipation Rejection

Claims 19, 23 to 26, 28 and 31 to 33 were rejected under 35 USC 102 as being anticipated by Sato JP 09-053085 for the reasons stated beginning at the middle of page 2 and continuing to the top of page 3 of the Office Action.

In view of the incorporation into claim 19 of features of original claims which were not subject to the anticipation

rejection, it is respectfully submitted that the anticipation rejection should be withdrawn.

JP 09-053085 discloses a process for preparing a solid fuel, which comprises the steps of: crushing a municipal waste, drying the waste, separating and removing metal and glass from the organic waste, molding the waste and carbonizing the waste.

The presently claimed invention includes a preliminarily carbonizing step and a carbonizing step, whereas JP 09-053085 does not disclose a preliminarily carbonizing step.

"Preliminarily carbonizing" serves to remove water and volatile material in the combustible wastes to generate a porous portion in paper and wood contained in the combustible wastes.

"Drying" serves to remove water in the wastes. Drying does not mean carbonization.

Therefore, the preliminarily carbonizing of the presently claimed invention is substantially different from the drying according to JP 09-053085.

Also, JP 09-0503085 does not teach or suggest a temperature of 300 to 800°C for preliminarily carbonizing as recited in applicants' claim 19.

In the presently claimed invention, the temperature of 300 to 800°C for the preliminarily carbonizing is important from the viewpoint of the moldability and low-temperature strength after the preliminary carbonization, and the carbonized product strength after the carbonization, etc. JP 09-053085 does not refer to moldability, low-temperature strength and carbonized product strength.

# Obviousness Rejections

Claims 20 to 22 and 27 were rejected under 35 USC 103 as being unpatentable over Sato for the reasons beginning at the middle of page 3 and continuing to the middle of page 4 of the Office Action.

JP 09-053085 to Sato was discussed above.

It was admitted in the Office Action that Sato does not explicitly teach a temperature range for the carbonization.

It was also admitted in the Office Action that Sato does not explicitly teach the forming of briquettes.

Claims 19 to 28 and 31 to 33 were rejected under 35 USC 103 as being unpatentable over Sato in view of Shulz USP 4,052,173 for the reasons indicated beginning at the middle of page 4 and continuing to the middle of page 6 of the Office Action.

JP 09-053085 to Sato was discussed above.

It was admitted in the Office Action that Sato et al do not explicitly teach a temperature at which the drying process is performed (as discussed hereinabove, "drying" in Sato is substantially different from the preliminarily carbonizing in applicants' claims).

It was further admitted in the Office action that Sato does not explicitly teach temperature ranges for the individual operations.

USP 4,052,173 to Schulz relates to the simultaneous gasification of coal and pyrolysis of organic solid waste materials in a vertical shaft furnace or a blast furnace.

JP 09-053085 relates to a process for preparing a solid fuel by using an apparatus having a dryer, a separator, shaping equipment and a carbonization furnace.

It is respectfully submitted that one of ordinary skill in the art would not consider combining USP 4,052,173 and JP 09-053085, since the processes of USP 4,052,173 an JP 09-053085 are substantially different from each other.

Also, USP 4,052,173 does not teach or suggest that preliminarily carbonized products are disintegrated and a binder is added and mixed to and with said disintegrated products, as recited in applicants' claims.

Claim 29 was rejected under 35 USC 103 as being unpatentable over Sato alone or in view of Gulley et al. USP 4,561,860 for the reasons set forth in the last paragraph on page 6 of the Office Action.

JP 09-053085 to Sato was discussed hereinabove.

It was admitted in the Office Action that Sato does not explicitly teach the addition of coal or coke to the waste before the molding process.

Claim 30 was rejected under 35 USC 103 as being unpatentable over Sato alone or in view of Shulz, and further in view of Daugherty et al. USP 5,562,743 for the reasons indicated on page 7 of the Office Action.

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Sato and Shulz were discussed hereinabove.

Claim 30 was canceled hereinabove. The features of claim 30 were incorporated into claim 19.

It is therefore respectfully submitted that applicants' claimed invention is not anticipated and is not rendered obvious over the references, either singly or combined in the manner relied upon in the Office Action in view of the many distinctions discussed hereinabove. It is furthermore submitted that there are no teachings in the references to combine them in the manner relied upon in the Office Action.

Reconsideration is requested. Allowance is solicited.

If the Examiner has any comments, questions, objections or recommendations, the Examiner is invited to telephone the undersigned at the telephone number given below for prompt action.

Respectfully submitted,

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Req. No. 28,180

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Enc.: PETITION FOR EXTENSION OF TIME